# **Casey Harris**

csharris9@gmail.com website: <u>caseyharris.github.io</u>

### **Education**

M.S. Ecology, University of Georgia, Athens, GA
B.S. Botany, University of Wisconsin, Madison, WI
Dec. 2009

### Experience

**Vellidis Research Group**, Crop and Soil Science, University of Georgia, Tifton, GA
Graduate Research Assistant and Research Professional II May-Aug. 2012 and May 2013-Present

- Our laboratory is working on a project to assess Salmonella levels in farm ponds, irrigation systems, and fresh produce at harvest. My responsibilities include assisting with aseptic sample collection, Salmonella analysis, recordkeeping, and writing papers. My responsibilities have also included developing protocols, maintaining trail cameras to monitor wildlife, and capturing farm wildlife to collect swabs/feces for Salmonella testing. All of our projects are conducted on commercial farms.
- For my master's thesis, I studied the transport of Salmonella and E. coli in fresh produce production environments during storms. I conducted field sampling and laboratory and statistical analyses. I also used GIS software to map watersheds and identify landscape characteristics associated with Salmonella levels in irrigation ponds.

## Odum School of Ecology, University of Georgia, Athens, GA

Graduate Teaching Assistant and Lead Teaching Assistant Aug. 2011-Apr. 2012 and Aug. 2012-Apr. 2013
I taught laboratory sessions (45 students/semester) for a course titled "The Ecological Basis of Environmental Issues". I also trained and supervised other teaching assistants, updated teaching materials, managed field trip logistics (200 students/semester), and maintained lab equipment.

**PACFISH/INFISH Biological Opinion Effectiveness Monitoring**, US Forest Service, St. Regis, MT Riparian Vegetation Survey Technician May-Sep. 2009 and May-Aug. 2011

I surveyed stream habitats to provide science-based information for steelhead/bull trout conservation and cattle grazing plans. This included identifying, quantifying, and collecting plants from remote areas, maintaining data on PDAs, assisting stream technicians, and traveling/hiking.

**Southeast Coast Network Inventory and Monitoring Program**, US National Park Service, St. Marys, GA
Terrestrial Monitoring Intern
Feb. 2010-Feb. 2011

With a team, I systematically surveyed natural areas for species of plants, reptiles, and amphibians. I also set up sound recording devices and used handheld GPS to record locations. I created reference materials for species ID and used software to automate the analysis of 10,000+ hours of frog calls.

**Givnish Laboratory**, Department of Botany, University of Wisconsin, Madison, WI Sep. 2007-Apr. 2009
Assisted with studies of shade tolerance and water stress in plants in greenhouse and field settings, including measuring leaf photosynthesis, growth, and soil moisture

Great Lakes Water Institute, University of Wisconsin, Milwaukee, WI

Assisted with studies of algal community composition under different nutrient availability and light conditions, including the use of nutrient flow analyzers, microscopy, and algae culturing

### Certifications

Hazard Analysis and Critical Control Points (HACCP) Certified, UGA Food Science Dept.

June 2013

#### Other

Advanced use of Microsoft Excel and other Microsoft Office software Intermediate use of ArcGIS and QGIS mapping and spatial analysis software Georgia Young Scholars Program Mentor Desire to work outdoors around plants, or both outdoors/laboratory

2013, 2014

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## Presentations, conferences, workshops

Water Microbiology Conference, University of North Carolina-Chapel Hill

"Salmonella in storm-driven surface runoff in vegetable farm landscapes in southern Georgia."

How to Make Precision Farming Pay: Precision Ag. Consortium Workshop (facilitator), Tifton, GA

The Center for Produce Safety 2013 Produce Research Symposium, Rochester, NY

June 2013

Odum School of Ecology Graduate Student Symposium

"Does algae regulate dissolved oxygen dynamics in a Coastal Plain blackwater stream?"

# **Publications**

In preparation for publication (from master's degree work):

Harris C. et al. Landscape factors associated with *Salmonella* prevalence in ponds used for fruit and vegetable farm irrigation in south Georgia, USA.

Harris C. et al. Comparison of storm-driven transport of *Salmonella* and *E. coli* in fresh produce farm landscapes in south Georgia, USA.

Aminabadi P. et al. Evaluation of foodborne pathogens in aquatic wildlife and irrigation ponds in southeastern Georgia.

National Park Service Reports: Byrne M.W. et al. Summary of amphibian community monitoring at Congaree National Park, 2010. Natural Resources Data Series. NPS/SECN/NRDS-2011/167. National Park Service, Natural Resource Stewardship and Science. Fort Collins, CO. Published report-2171218.

 Similar reports available for Cape Hatteras (2170210), Cape Lookout (2171212), Fort Sumter (2168915), and Moore's Creek (2173051). <a href="http://science.nature.nps.gov/im/reports/">http://science.nature.nps.gov/im/reports/</a>

#### **Awards**

| ABC Research Laboratories Travel Grant, Center for Produce Safety Symposium | June 2013           |
|-----------------------------------------------------------------------------|---------------------|
| Odum School of Ecology Small Grant                                          | Apr. 2013           |
| University of Georgia Scholars of Excellence Full Assistantship             | Aug. 2011-Apr. 2013 |

### **Professional associations**

Georgia Fruit and Vegetable Growers Association National Environmental Health Association